

COUNTY OF LOUDOUN  
DEPARTMENT OF BUILDING & DEVELOPMENT  
MEMORANDUM

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DATE: May 11, 2009  
TO: Larr Kelly, Zoning  
FROM: Glen Rubis, Engineering Division and staff liaison to WRTAC  
SUBJECT: **Comments from Water Resources Technical Advisory Committee on  
1/21/09 Draft Limestone Overlay District Ordinance**

Attached are comments received to date from members of the Board-appointed Water Resources Technical Advisory Committee (WRTAC) on the LOD draft dated 1/21/09. As the staff liaison to the WRTAC, I have worked with the members during several committee meetings to solicit their comments and recommendations.

On the attached pages I have summarized and consolidated the committee's comments to facilitate your adding them to the matrix of comments developed for the Planning Commission. The original WRTAC member emails are available should you need them.

Please let me know if you have any questions.

**Loudoun County**  
**Water Resources Technical Advisory Committee**  
May 11, 2009

**Comments on the 1/21/09 draft Limestone Overlay District Ordinance**

Comment approved by the committee of the whole:

Within 90 days of adoption of the Limestone Overlay District Ordinance, the County shall develop a process for a zoning determination to exclude specific areas within the LOD that have been shown through the presentation of appropriate and sufficient site-specific geologic and/or geotechnical data to have no significant limestone conglomerate material or voids to a depth of (to be determined) feet below land surface. The proposed process shall be reviewed by the WRTAC committee for comment and input prior to finalization.

The following comments were submitted by individual WRTAC members and may not represent the opinions of any other members of the committee unless so noted. They are listed in order of the sections within the draft LOD and are followed by the name(s) of the member(s) that submitted them.

1. 4-1903(A)

(a) The currently mapped LOD includes significant areas not underlain by limestone and, therefore, not subject to problems associated with karst. (James Emery)

*(This led to the comment approved by the committee of the whole shown above.)*

(b) The area south of the currently mapped LOD, including the area of the County's Solid Waste Landfill, is also underlain by limestone conglomerate material. It is inconsistent /contradictory to designate an LOD district that excludes significant areas within the County that are underlain by limestone (or other rocks that have a carbonate matrix that have generated karst features) while at the same time designating the LOD to include properties that are not underlain by limestone. (James Emery)

2. 4-1903(C)(1)

Substantial hydrogeologic data collected throughout the karst regions of the Shenandoah Valley have demonstrated that agricultural activities in karst limestone environments are very often directly responsible for adversely impairing groundwater resources that serve as domestic, community and municipal drinking water sources. Although a Farm Management Plan helps, exempting agricultural activities from the LOD regulations diminishes the usefulness/effectiveness of the Ordinance. (James Emery)

3. 4-1906(E)(1)

Language is too vague. (Gem Bingol)

4. 4-1906(E)(2)

Can specific precautions be required that would allow "motor vehicle service and repair" operations? (Patrick Holden)

5. 4-1907(E), (F), and (G)

(a) Requiring communal water and wastewater systems on subdivisions with as few as eight (8) lots is not feasible from an operation/maintenance and cost perspective.

(James Emery)

(b) Communal systems should not be required for any subdivision if all lots are 10 or more acres in size. (From committee meeting discussion.)

6. 4-1907(K)

(a) Clarify that this does not pertain to agricultural operations as noted in 4-1903(C)(1) (Patrick Holden)

(b) Restricting use of fertilizers and pesticides may not be enforceable because of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (Patrick Holden and Diana Weber)

7. 4-1907(L)

Blasting with explosives can be highly damaging in an area with unstable karst features and some level of investigation should be required prior to any substantial blasting program. (James Emery)

8. 4-1907(M)

Warnings on a property owner's subdivision plat are not appropriate if their property is not underlain by limestone (related to comment # 1). (James Emery)

9. (Maybe add to section 4-1908 ?)

Contamination from pet waste is a documented problem in some surface waters and may cause problems in the LOD. Through either the LOD Ordinance or a public education program, this potential problem should be addressed. (Diana Weber)

10. A public education component should be part of the overall protection plan for the LOD. (Diana Weber - and agreed to by other committee members.)

11. Engage assistance from the Office of Rural Economic Development to help agricultural operations voluntarily comply with, to the extent feasible, LOD requirements in order to avoid or mitigate negative impacts to water resources in the LOD. (Sarah Stinger)

12. Several members expressed general overall agreement with the LOD draft. (Eric Deaver, Elizabeth Tandy, and Jeff Wolinski)

13. 4-1907(C)(1)

Clarify that the surface water runoff referenced in this section is from "land disturbing activity". (From committee meeting discussion.)